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1. A digital equipment system comprising:
  - a. a host for sending commands to read or write files having sectors of information, each sector having and being modifiable on a bit-by-bit, byte-by-byte or word-by-word basis, said host being operative to receive responses to said commands;
  - 5 b. a controller device responsive to said commands, and including,
    - one-time-programmable nonvolatile memory for storing information organized into sectors, based on commands received from the host and upon receiving commands from the host to re-write a sector, the controller device for re-writing said sector on a bit-by-bit, byte-by-byte or word-for-word basis.
- 10 2. A digital equipment system as recited in claim 1 wherein said one-time-programmable nonvolatile memory includes a system area and a data area, said system area for storing information pertaining to the organization of the information stored or to be stored in the data area.
- 1 3. A digital equipment system as recited in claim 2 wherein said system area includes storage areas for including Original Engineering Manufacturer (OEM) identification/Bidirectional Input/Output System (BIOS), a File Allocation Table (FAT) 1, a FAT 2 and root disk directory information.
- 1 4. A digital equipment system as recited in claim 1 wherein said controller device further includes a first buffer for storing a host-provided sector and a second buffer for storing sectors stored or to be stored in the one-time-programmable nonvolatile memory.

- 1 5. A digital equipment system as recited in claim 4 further including a comparator coupled  
2 between said first and second buffer for comparing a sector to be modified or accessed by the  
3 host with those sectors to which information has been previously written.
- 1 6. A digital equipment system as recited in claim 1 wherein during power-up, said controller  
2 device for identifying the end-of-file, wherein the location following the location in which  
3 the end-of-file resides is identified as the location for the start-of-file of a new file to be  
4 stored.
- 1 7. A digital equipment system as recited in claim 6 wherein said end-of-file is identified by the  
2 use of a flag.
- 1 8. A digital equipment system as recited in claim 1 wherein said files are digital photographs.
- 1 9. A digital equipment system as recited in claim 1 wherein said files are archives.
- 1 10. A digital equipment system as recited in claim 1 wherein said controller device maintains a  
2 correlation between logical addresses and physical addresses for translating host-provided  
3 addresses to addresses recognized by the one-time-programmable nonvolatile memory.
- 1 11. A digital equipment system as recited in claim 10 wherein said controller for maintaining  
2 track of defective locations within the one-time-programmable nonvolatile memory.
- 1 12. A digital equipment system comprising:  
2 a. a host for sending commands to read or write files having sectors of information, said  
3 host being operative to receive responses to said commands;  
4 b. a controller device responsive to said commands, and including,  
5 one-time-programmable nonvolatile memory for storing information organized into  
6 sectors, based on commands received from the host, and upon commands from the host to re-  
7 write a sector, said one-time-programmable nonvolatile memory including a spare area, said  
8 controller for mapping sectors being re-written to spare area.
- 1 13. A digital equipment system as recited in claim 12 wherein said one-time-programmable  
2 nonvolatile memory further includes a system area and a data area.

1 14. A digital equipment system as recited in claim 13 wherein said controller device for  
2 identifying a start-of-file location and an end-of-file location and a defective sector location  
3 within the one-time-programmable nonvolatile memory, the latter of which is skipped over  
4 when writing sectors.

1 15. A digital equipment system as recited in claim 14 wherein the information that was to be  
2 written to the defective sector is instead written to the spare area location.

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4 16. A digital equipment system as recited in claim 12 wherein said controller for determining if  
5 there is no start-of-file identifier at a location following a corrupted sector or there is no end-  
6 of-file in the rest of the one-time-programmable nonvolatile memory, such location  
7 identified as a corrupted sector due to power failure and designated accordingly so as to  
8 prevent future storage of information therein.

1 17. A digital equipment system comprising:

2 a. a host for sending commands to read or write files, said host being operative to receive  
3 responses to said commands;

4 b. a controller device responsive to said commands, and including,

5 one-time-programmable nonvolatile memory for storing files and identifying the  
6 start-of-file and end-of-file for a file being stored within the one-time-programmable  
7 memory, wherein during power-up, said controller device for identifying the end-of-file of a  
8 stored file, the location following the location in which the end-of-file resides being  
9 identified as the location for the start-of-file of a new file to be stored.

1 18. A digital equipment system comprising:

2 a. a host for sending commands to read or write files having sectors of information, said  
3 host being operative to receive responses to said commands;

4 b. a controller device responsive to said commands, and including,

one-time-programmable nonvolatile memory having spare locations for storing sector information, said one-time-programmable nonvolatile memory for storing information organized into sectors based on commands received from the host and upon receiving a command from the host to re-write or update a sector, the controller device for writing the updated sector to a spare location.

19. A digital equipment system comprising:

a. a host for sending commands to read or write files having sectors of information, each sector having associated therewith an error correction code (ECC) indicative of the corruption of sector information, said host being operative to receive responses to said commands;

b. a controller device responsive to said commands, and including,

one-time-programmable nonvolatile memory for storing information organized into sectors, wherein said controller checks the ECC of a particular sector for a determination of whether or not the particular sector is corrupted and if so, reads the information stored within the next sector and determines if the next sector information is in a non-programmable state and if so or the ECC associated with the next sector indicates that the next sector information is corrupt, the controller device identifies an end-of-file.